US EPA RECORDS CENTER REGION 5

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Mr. Bernie Schorle Remedial Project Manager United State Environmental Protection Agency Region V 77 West Jackson Boulevard Chicago, IL 60604-3590

Re: Additional investigations South, North and West of the MW106/P1 well nest.

## Dear Bernie:

Winnebago Reclamation Service is required to perform additional investigative work to satisfy the Illinois Environmental Protection Agency requirements for the establishment of a Groundwater Management Zone. The goal of the additional investigation is to provide a more thorough evaluation of the horizontal and vertical extent of impacted groundwater west of Kilbuck Creek. In addition, we wish to establish a clear Southern and Northern boundary for impacted groundwater on the east side of Kilbuck creek. An outline of the proposed additional work is presented below.

- 1) Complete 4 test boreholes to the top of bedrock (approximately 70').
- During drilling groundwater samples will be collected at discrete elevations. Dual Tube Reverse Circulation will be used to drill the boreholes. This method allows samples to be collected at a discrete interval without removing any equipment from the borehole. The center drill pipe from which the sample is collected will be purged of approximately 10 pipe volumes to allow a representative sample of formation water to be collected. Actual samples will be collected with a Teflon bailer after purging and sent to the Montgomery-Watson Lab in Madison, WI for overnight analysis. The samples will be obtained at ~25'-35' and 55'-65' in each borehole.
- Samples will be analyzed for Fe, Mn, NH<sub>4</sub>-N, Ni, and Cl<sup>-</sup> at the shallow sampling depth. The deeper sample in each borehole will be analyzed for method 8021 VOC's as well as the inorganics listed above. The samples will be analyzed in accordance with the Quality Assurance Project Plan for sampling while drilling.

- 4) Upon completion of sampling and drilling the test borehole will be abandoned using bentonite grout or chips in accordance with Illinois Water Well Construction Code 77 IAC 920.
- Approximately 2-4 nested well groups comprised of two wells at each group will be installed after the investigative borings have been completed. The location of these well groups will be determined using the data collected from the test borings. Wells will be constructed of 2" diameter type 316 stainless steel with a ten foot screen. It is estimated that the overall well depths will be similar to the sampling depths listed in item 1 (25'-35' and 55'-65'). One monitoring well of each nested group will be sampled continuously using a split spoon sampler.
- 6) It is our intent to install the new wells to serve as downgradient monitoring wells which will fully delineate the zone of impacted groundwater. The well locations will be selected based on the results from the test borings. Approximate location of the test borings are presented on the enclosed map

If you have any questions or concerns regarding this additional work, please notify me as soon as it is possible.

Sincerely,

Thomas Hilbert

cc: Raj Rajaram, PRC Environmental
Dan Burnell, GeoTrans
Fred Nika, Illinois Environmental Protection Agency

